REMARKS

The amendments and remarks presented herein are believed to be fully responsive to the Office Action.

Claims 21-24, 30-33 and 35-37 are pending in the present application. Claims 25-29, 34 and 38 have been cancelled, without prejudice. No new matter has been added. Since all the amended limitations added to each independent claim are imported from currently canceled dependent claims, no further research would be required for the amended claims. The independent claims recited by the present application are claims 21, 30 and 35.

CLAIM OBJECTIONS:

The Office Action objected to for lack of antecedent basis:

a.   "the keyword group" – The antecedent basis thereof is "a predetermined keyword group" in the same limitation. Applicants respectfully add the term "predetermined" to "the keyword group" to clearly show the antecedent basis.

b.   "the searched keyword" – In accordance with the Office Action, Applicants respectfully amend the word "the" to "a".

c.   "The search requested" -   In accordance with the Office Action, Applicants respectfully amend the claims as the aforementioned amendment. For example, claim 21 recites "means for receiving a search request ~~keyword~~ from a user through a communication network, the search request including a keyword."

CLAIM REJECTIONS:

A. Claim Rejections under 35 U.S.C. § 112

The Office Action notes that claims 21-38 are indefinite for failing to particularly point

out and distinctly claim the subject matter because the phrase "the representative keyword" is not

clearly understood. Applicants respectfully amend the claims. Particularly, Applicants add the

limitation "the representative keyword representing the other keywords associated with the

representative keyword, which convey a same or similar meaning" to claims 21, 30 and 35. The

amended limitation is supported by the specification. For example, the paragraphs [0027] and

[0034] of the present application recite:

> [0027] In the meantime, the term of "a keyword group" used
> in the present specification means a group comprising one
> representative keyword and a keyword having the
> same/similar meaning thereto, wherein the term of "the
> representative keyword" means a keyword provided for a user
> from keywords comprised in the keyword group, together with
> an input order.

> [0034] The keyword database 320 maintains a predetermined
> keyword group and data of the number of input keywords
> corresponding thereto, as illustrated in FIG. 4b. A keyword
> group includes a representative keyword and at least one
> keyword having the same/similar meaning thereto. For
> example, as indicated by a drawing symbol 402, the
> representative keyword is `seven (Korean)`, the keyword
> having the same/similar meaning to `seven (Korean)` is
> `seven`, and `seven (Korean)` and `seven` are included in
> one keyword group.

The Office Action notes that claims 21-38 are indefinite for failing to particularly point

out and distinctly claim the subject matter because the phrase "the searched keyword" is not

clearly understood. Applicants respectfully amend the claims 21, 30 and 35 as reciting:

"providing the user with information showing popularity of the ~~searched~~ keyword included in the

search request." No new matter is added.

Claim Rejection under 35 U.S.C. § 103

The Office Action states that claims 21-38 stand rejected under 35 U.S.C. 103(a), as

being unpatentable over Monteverde (Publication No. US 2003/0088553) ("Monteverde") in

view of Yoo et al. (Patent No. 7,146,416)("Yoo et al.").

Applicants respectfully traverse these rejections. Further, claims 25-29, 34 and 38 have

been cancelled, without prejudice. Thus, the rejections thereof are moot.

Claim 21

With regard to claim 21, Applicants respectfully amend claim 21 as it incorporates

limitations recited in claim 25 and canceled claim 25. The amended independent claim 21

recites the following limitations:

> ... at least one memory having program instructions and databases, the databases including:
>
> a category classification database including at least one classification record, the classification record including a representative category associated with a predetermined keyword group, the predetermined keyword group including a representative keyword and other keywords associated with the representative keyword;
>
> a keyword database including a predetermined keyword group and data indicative of a number of searches made using a representative keyword or other keywords associated with the representative keyword, the representative keyword representing the other keywords associated with the representative keyword, which convey a same or similar meaning;
>
> <u>means for receiving a selection of a representative category associated with a predetermined keyword group from a manager;</u>
>
> <u>means for updating the received representative category associated with the predetermined keyword group in the classification record by associating the received</u>

<u>representative category with a different predetermined keyword group;….</u>

By way of background and illustration, amended claim 21 describes a method of providing a user with popularity of a search keyword based on a number of searches made using a representative keyword associated with the search keyword. The representative keyword represents both the search keyword and other keywords that convey a same or similar meaning. The present invention shows the popularity report of a search keyword in association with a category to which the search keyword belongs. However, the present invention further recognizes problems that a popular keyword could be misplaced under a category due to dual meanings of the keyword. For example, assuming that the term "Iraq" has been searched for topics related to the Iraq war, but people starts searching with the same term "Iraq" for topics related to a recent high gas price, instead of the Iraq war. In this case, the popularity report should show a popularity value of the keyword "Iraq" associated with the category of "gas price," instead of the previously popular category, "the Iraq war." To achieve this goal, the present invention allows reassignment of a search keyword to a different category according to change of hot topics. Claim 1 recites means for receiving a selection of a representative category associated with a predetermined keyword group from a manager and means for updating the received representative category associated with the predetermined keyword group in the classification record by associating the received representative category with a different predetermined keyword group. The specification of the present application also supports the amended claim 21. For example, paragraph [0031] of the present application recites:

[0031] According to one embodiment of the present invention, the search service system 300 includes the management unit 390 for managing the category classification database 310. The management unit 310 receives a selection of a representative category related to a predetermined keyword group or a selection of a general category related thereto, from a manager; and changes the received representative category related to the keyword group or the received general category related thereto in the classification record. For example, a representative category used to be `movie`, in association with a keyword `seven`. However, in case that it is determined that users input the keyword `seven` in order to search for a singer `seven`, not a movie titled by `seven`, the manager inputs a selection of `singer` for the representative category and a selection of `movie` for the general category, in association with the keyword group including the keyword `seven`. The management unit 390 enables the classification record 401 as illustrated in FIG. 4a to be maintained, based on the selection of the representative category and the selection of the general category inputted in association with the keyword group including the keyword `seven`. Namely, it is possible to change the representative category or general category included in at least one classification record which is maintained in the category classification database 310.

Applicant submits that Yoo et al. is not applicable. Yoo et al. is also directed to a method of providing buzz (the term "buzz" refers to a measurement of the user activity that relates to a particular topic, term or category) report for a search term, a topic and a category, in order of number of counts, along with an indication of relative change in buzz values. However, Yoo et al. does not teach or suggest reassignment of a search keyword to a different category according to change of hot topics.

Further, Yoo et al. does not provide the Buzz report in response to a search request for information in association with a keyword. Column 4, lines 49-54 of Yoo et al. recites:

> When a user arrives at a particular page after navigating a
> subject directory, the page hit might be associated with
> the subject of the navigation. By comparing changes or
> trends in the traffic associated with a search term or a
> category, the "buzz" associated with a topic, term or
> category can be assessed.

Referring to Figs. 9-13 of Yoo et al., a user can find a Buzz report by navigating

categories or searching for the Buzz report with a specific term. However, Yoo et al.

does not disclose method of providing popularity information to a searcher in response to

a general search request in a search engine that designed to search for information on the

World Wide Web. Whereas, the popularity information of the present invention is

presented to users in association with their usual search task, not a search for popularity

information.

Monteverde discloses updating the most popular Internet sites to be displayed for

the most popular category. Paragraph [0036] of Monteverde recites:

> [0036] Referring to FIGS. 4 and 5, once the preponderant
> method determines the most popular topical category, the
> present invention may utilize statistical market research
> data to determine the most popular Internet sites assigned
> to that particular most popular topical category. The
> service provider may disclose the most popular topical
> category information with the statistical data provider 19
> so that the Internet site information gets assigned to the
> proper topical category. As such, the present invention may
> track searcher activities when utilizing the service
> provider's search engine to determine which Internet sites
> are visited most within any given topical category and
> implement that data into an evolving system that will
> update the topical category database and provide the
> searchers with the most relevant Internet site(s) for any
> given search term based upon prior results. Once this
> statistical information is received by the statistical data
> provider, the Internet sites may then be organized based on
> a number of criteria including, but not limited to, the
> number of unique visitors to each Internet site, the total

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amount of traffic to the Internet site, the number of
hyperlinks pointing to the Internet site, and any other
data used to assess the popularity of the Internet site.
Once the Internet site(s) are organized for that particular
topical category, the most popular topical category is
displayed along with its correspondingly assigned Internet
site(s) information, followed by the next most popular
category with its correspondingly assigned Internet site
information in the same fashion as stated above, and so on.
Preferably, the most popular topical category search
results are listed first by listing all Internet sites'
information assigned to that specific most popular topical
category and organized with the statistical information. It
is anticipated that the most popular topical category
assigned to the initial search result will contain the
information that the searcher was initially searching for.
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First of all, the system of Monteverde reassigns not a search keyword but the most popular Internet web sites. Moreover, the system of Monteverde does not reassign the Internet web site to show popularity of search keywords in association with a category of the search keywords. Monteverde only determines the most popular Internet web sites assigned to that particular most popular topical category and updates popular Internet web sites to be assigned to the particular topical category based on statistical market research. As such, neither Yoo et al. nor Monteverde teaches or suggests re-associating a search term with a different topic or search category according to the change of hot topics. Therefore, claim 21 is now in condition for allowance.

The other independent claims 30 and 35 recite similar distinguishing elements. Thus, the same arguments apply to those claims. Therefore, claims 30 and 35 of the present invention are in condition for allowance.

Claims 22-24 depend from independent claim 21 and, as such, are in allowable condition since claim 21 is clearly allowable over the cited prior art.

Claims 31-33 depend from independent claim 30 and, as such, are in allowable condition since claim 30 is clearly allowable over the cited prior art.

Claims 36-37 depend from independent claim 35 and, as such, are in allowable condition since claim 35 is clearly allowable over the cited prior art.

In light of the aforementioned amendments and discussion, Applicant respectfully submits that the application is now in condition for allowance.

If any issue regarding the allowability of any of the pending claims in the present application could be readily resolved, or if other action could be taken to further advance this application such as an Examiner's amendment, or if the Examiner should have any questions regarding the present amendment, it is respectfully requested that the Examiner please telephone Applicant's undersigned attorney in this regard.

Respectfully submitted,

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